

City Council Work Session

Railroad Quiet Zone Feasibility Study

September 11, 2007



A vertical photograph on the left side of the slide shows a railroad crossing. It features a red and white striped crossing arm, a sign that reads "RAILROAD CROSSING", and two red lights. The background of the photo shows some greenery and a clear sky.

Presentation Outline

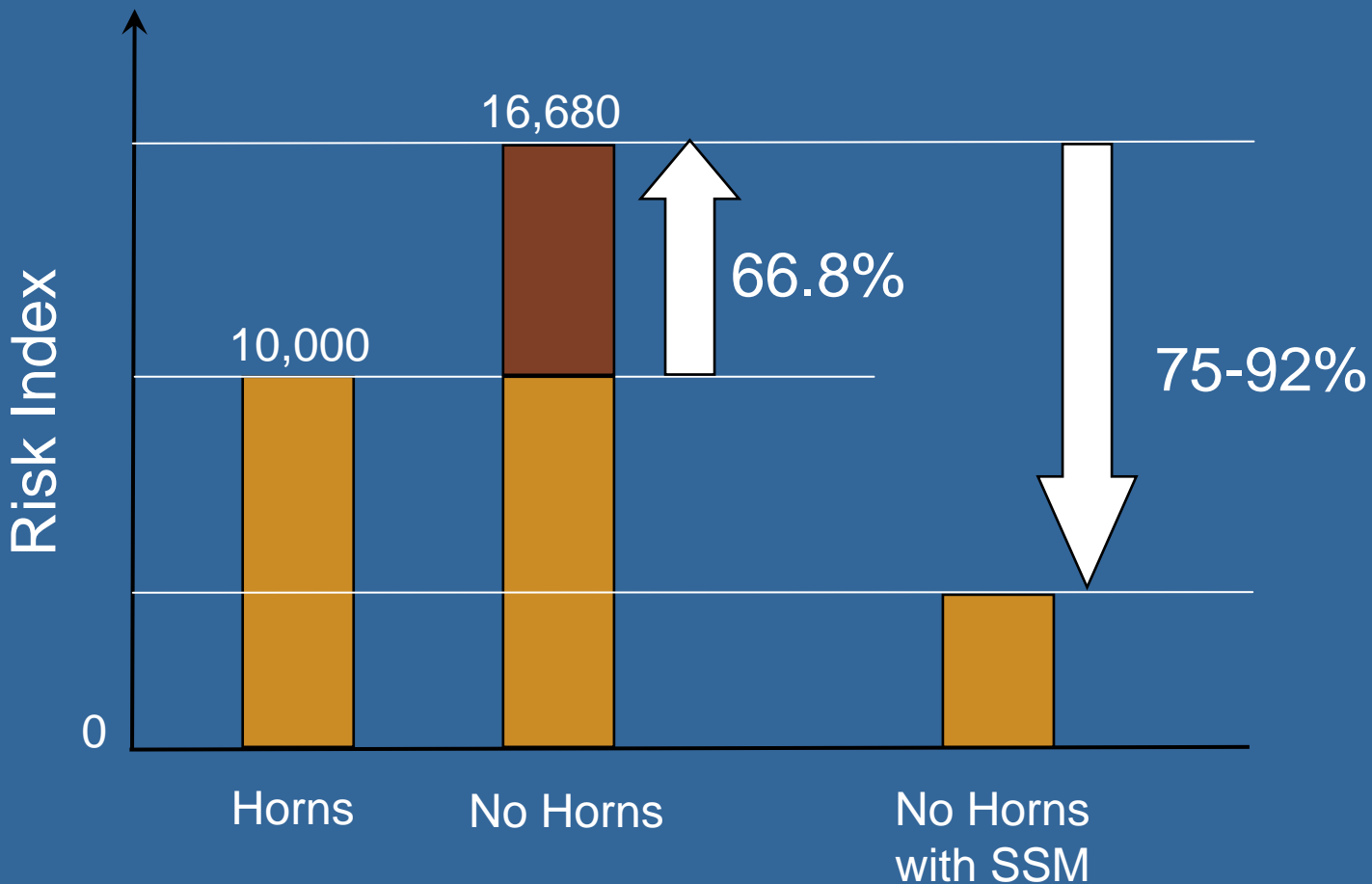
- ◆ Purpose
- ◆ Recap of July 16 Work Session
- ◆ Potential Quiet Zones
- ◆ Crossing Improvements (SSMs)
- ◆ Estimated Cost
- ◆ City Council Input

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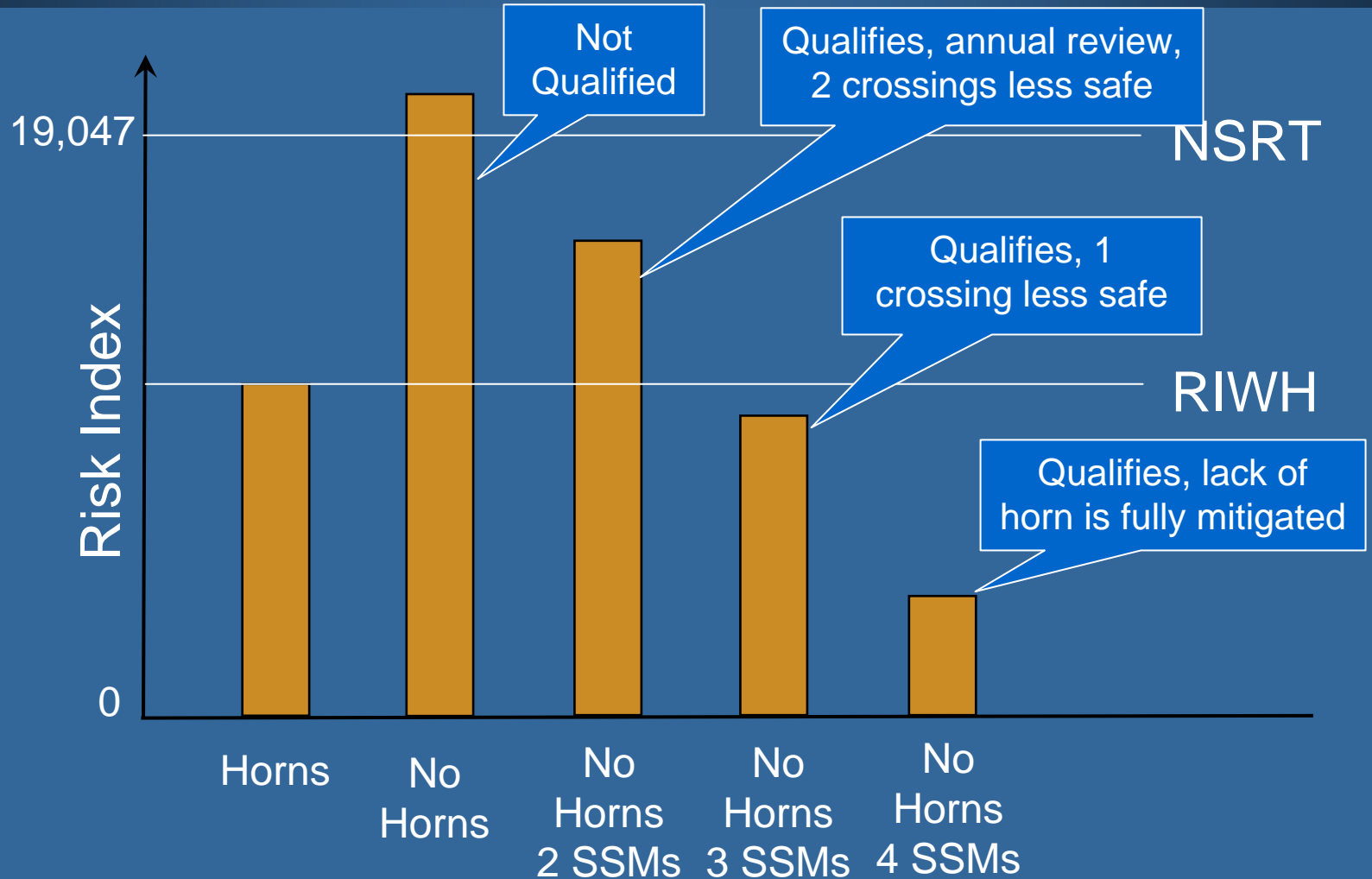
Purpose

- ◆ Provide recommendations for potential quiet zones and supplemental safety measures
- ◆ Provide an estimated cost to establish quiet zones
- ◆ Obtain City Council comments regarding the potential development of quiet zone projects

Effects of Train Horn and SSMs on Risk



Example: 4-Crossing Quiet Zone

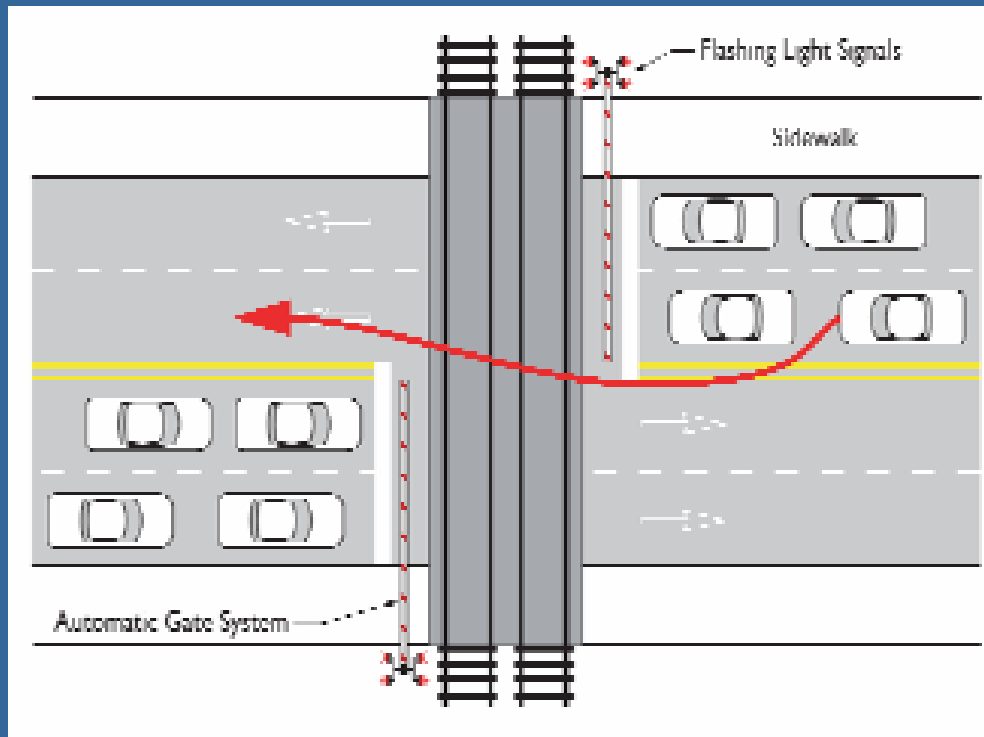


A vertical photograph on the left side of the slide shows a railroad crossing. It features a red and white striped gate, a sign that reads "RAILROAD CROSSING", and two red lights. The background includes some greenery and a clear sky.

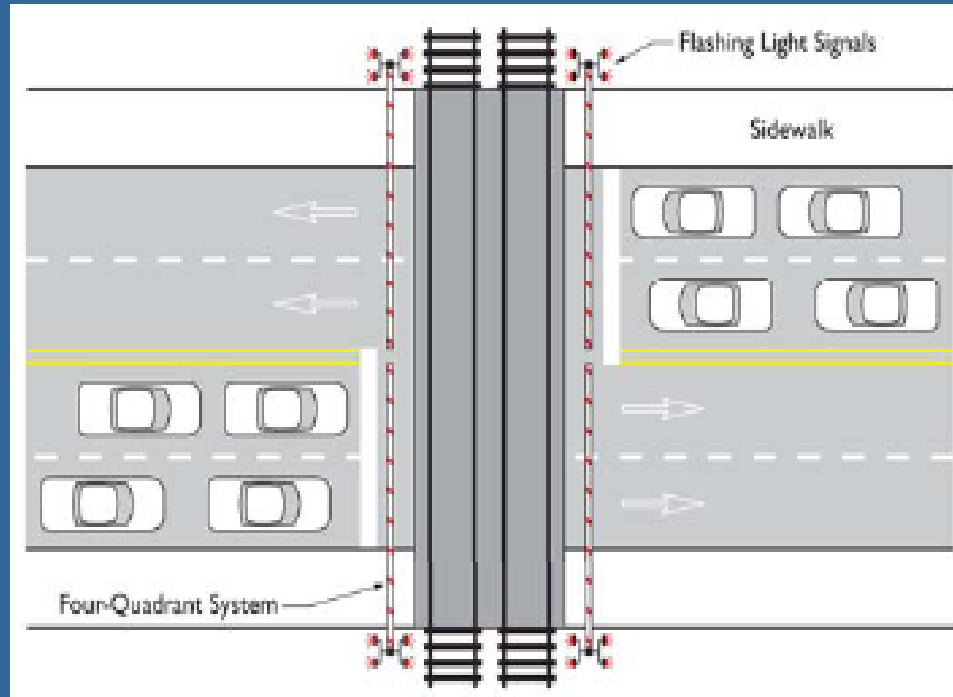
SSM – Supplemental Safety Measure

- ◆ Pre-approved safety improvements that fully compensate for the absence of train horn
 - ❖ Four-quadrant gate system
 - ❖ Median/Channelization
 - ❖ Closure (Permanent or Temporary)
 - ❖ One-way street with gates
- ◆ Prevent vehicles from going around gates

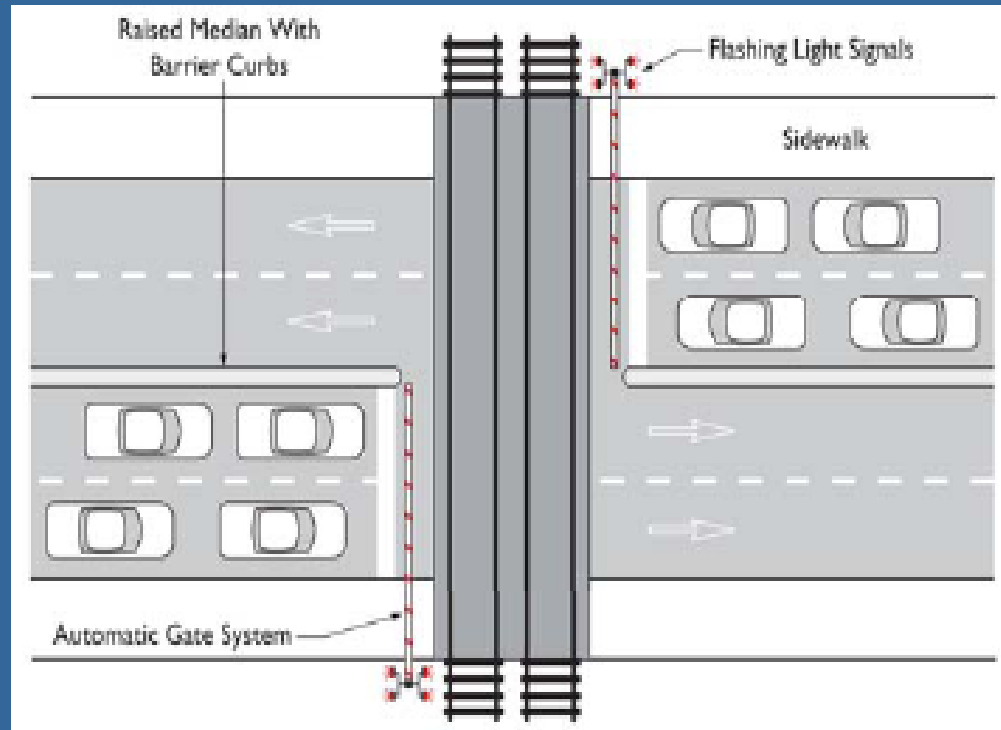
SSM – Purpose



SSM – Four Quadrant Gate System



SSM – Median/Channelization



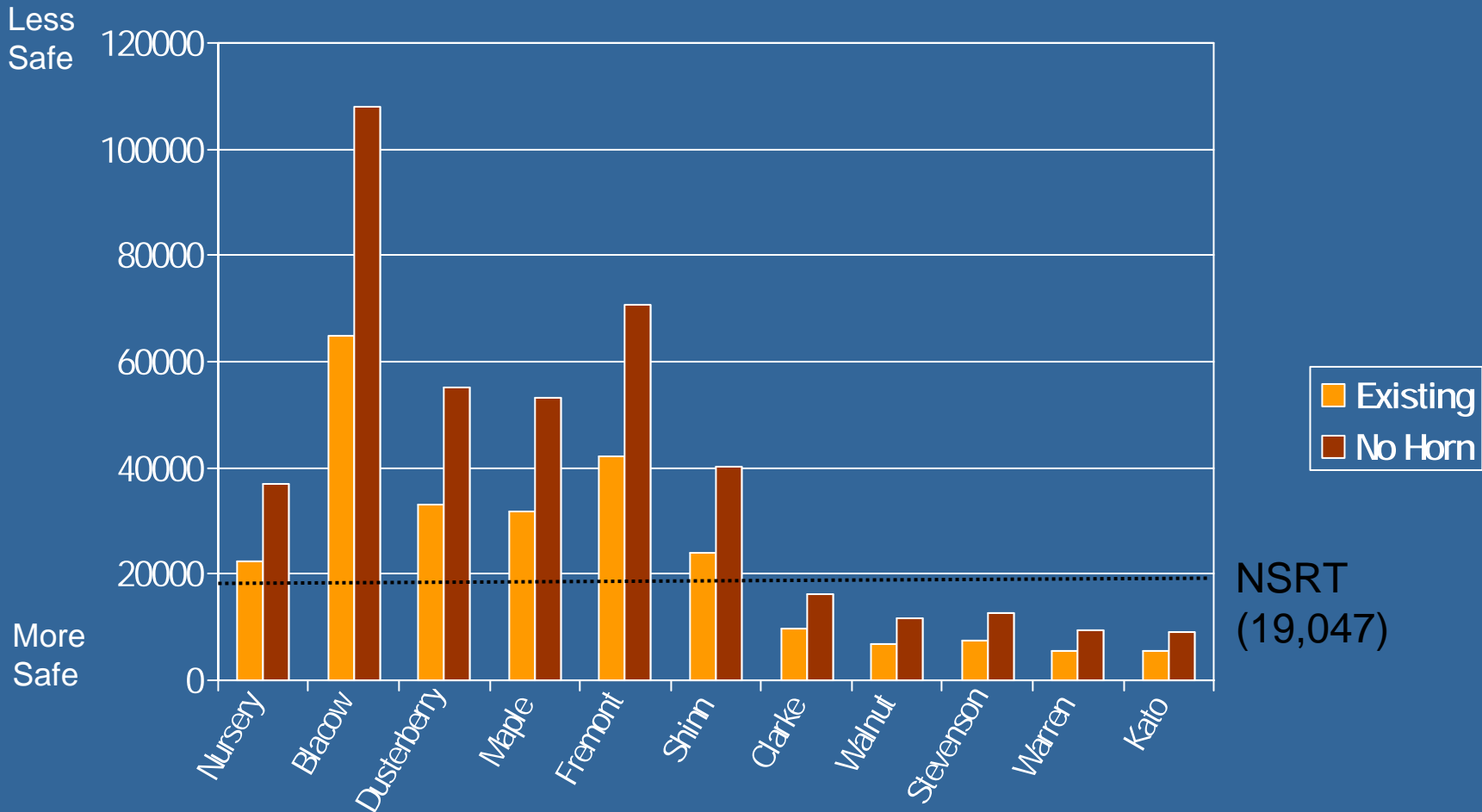


Staff Recommended Approach

If quiet zones are desired:

- ◆ Install SSMs at all public crossings within the quiet zone
 - ❖ This is the safest approach (statistically)
 - ❖ Risk increase due to lack of horn at each individual crossing is fully mitigated
 - ❖ Does not result in any crossing being less safe
 - ❖ Does not require annual re-evaluation
- ◆ Consider liability impacts

Existing Risk Index



Potential Quiet Zones

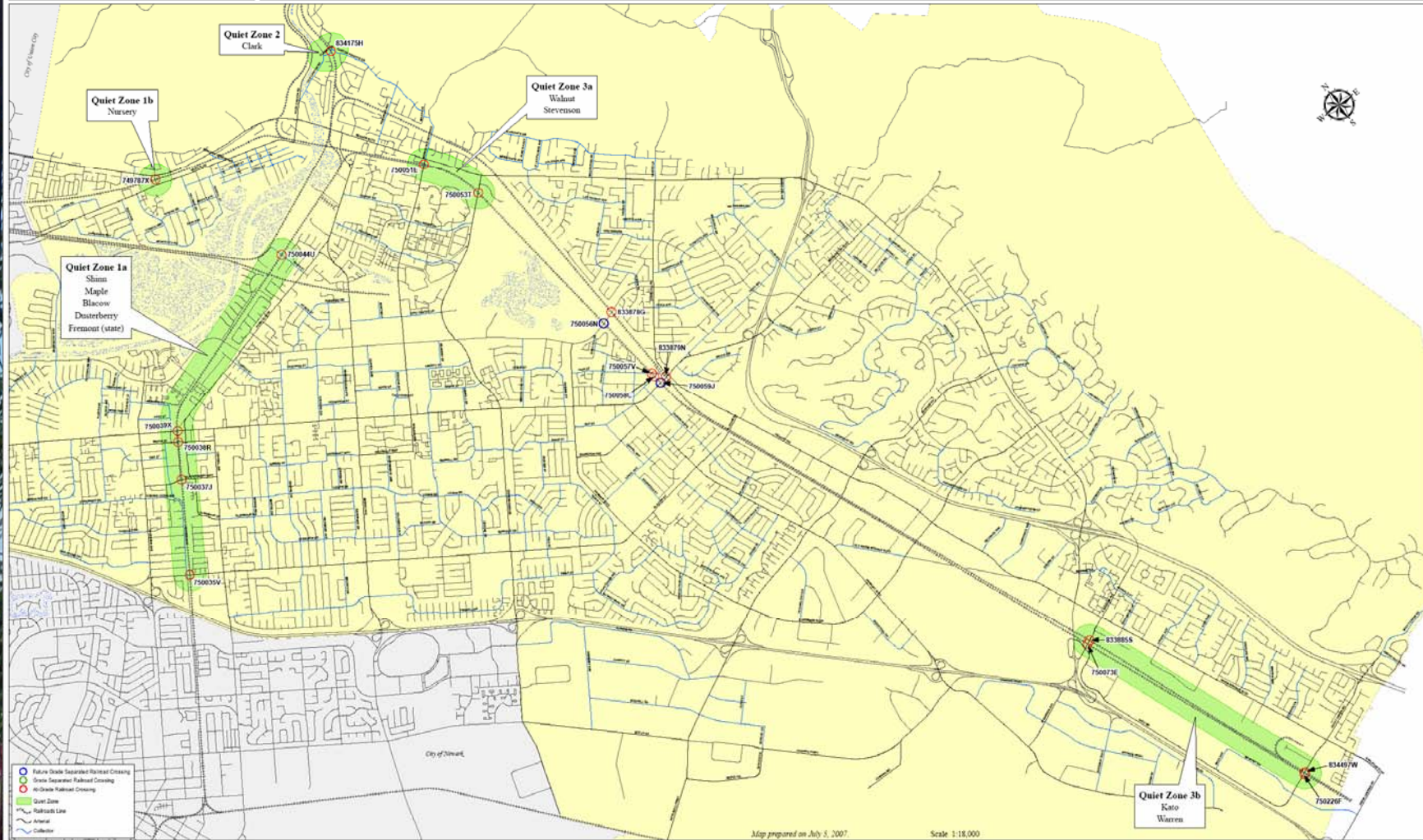
Quiet Zone 1a	Quiet Zone 1b	Quiet Zone 2	Quiet Zone 3a	Quiet Zone 3b
Shinn Fremont Maple Dusterberry Blacow	Nursery	Clarke	Walnut Stevenson	Warren Kato

Potential Quiet Zones



City of Fremont GIS Division
Office of Information Systems
39150 Liberty Street, P.O. Box 1006
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QUIET ZONE FEASIBILITY STUDY



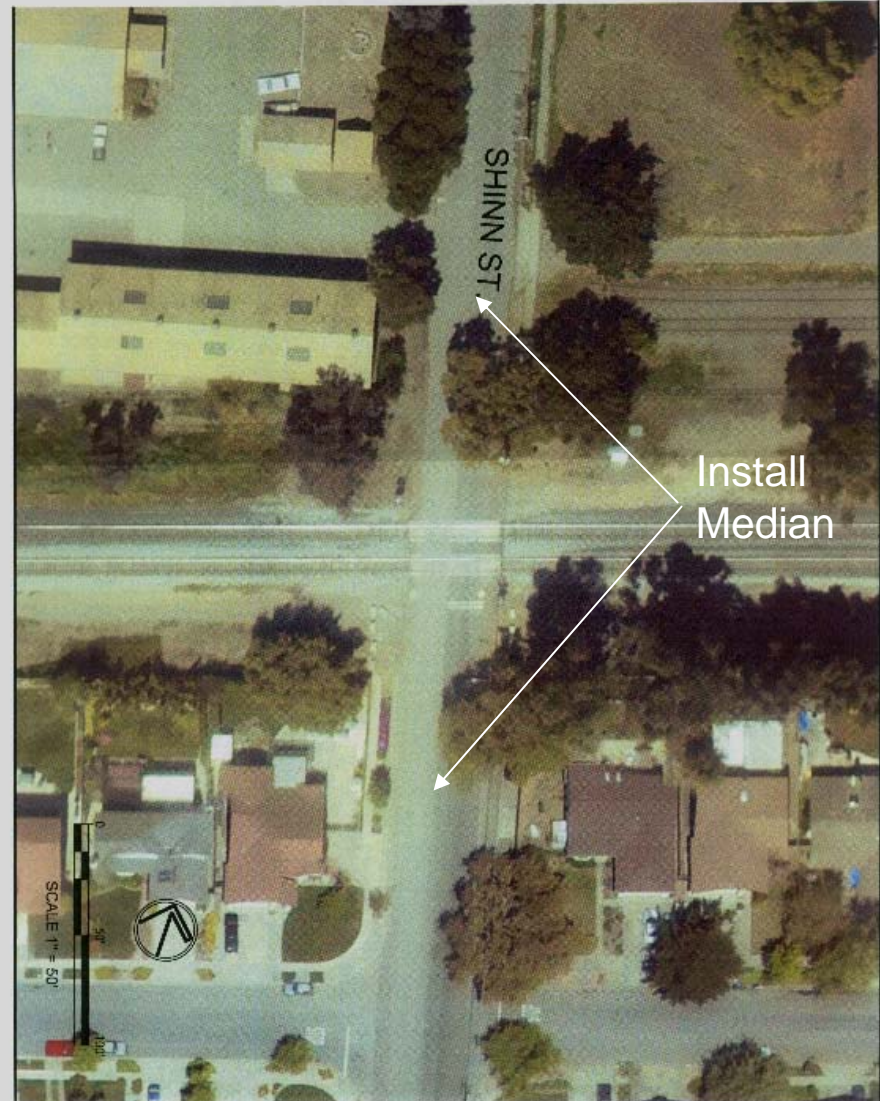
Shinn St.

SSM

- ◆ Median

ISSUE(S)

- ◆ Requires CPUC approval
- ◆ Requires UPRR coordination and approval



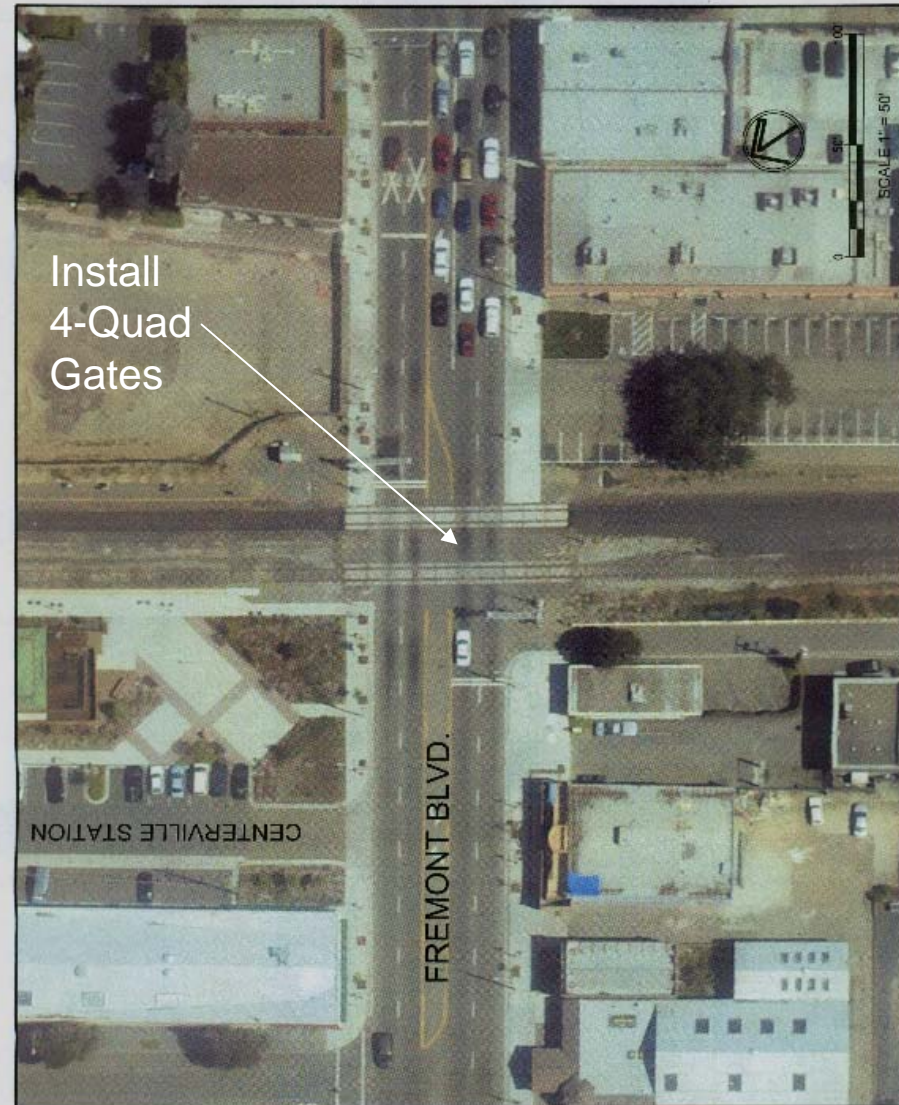
Fremont Blvd.

SSM

- ◆ Four-Quadrant Gates

ISSUE(S)

- ◆ Need State to designate quiet zone
- ◆ Requires CPUC approval
- ◆ Requires UPRR coordination and approval
- ◆ Longer lead time
- ◆ High capital cost and on-going maintenance cost



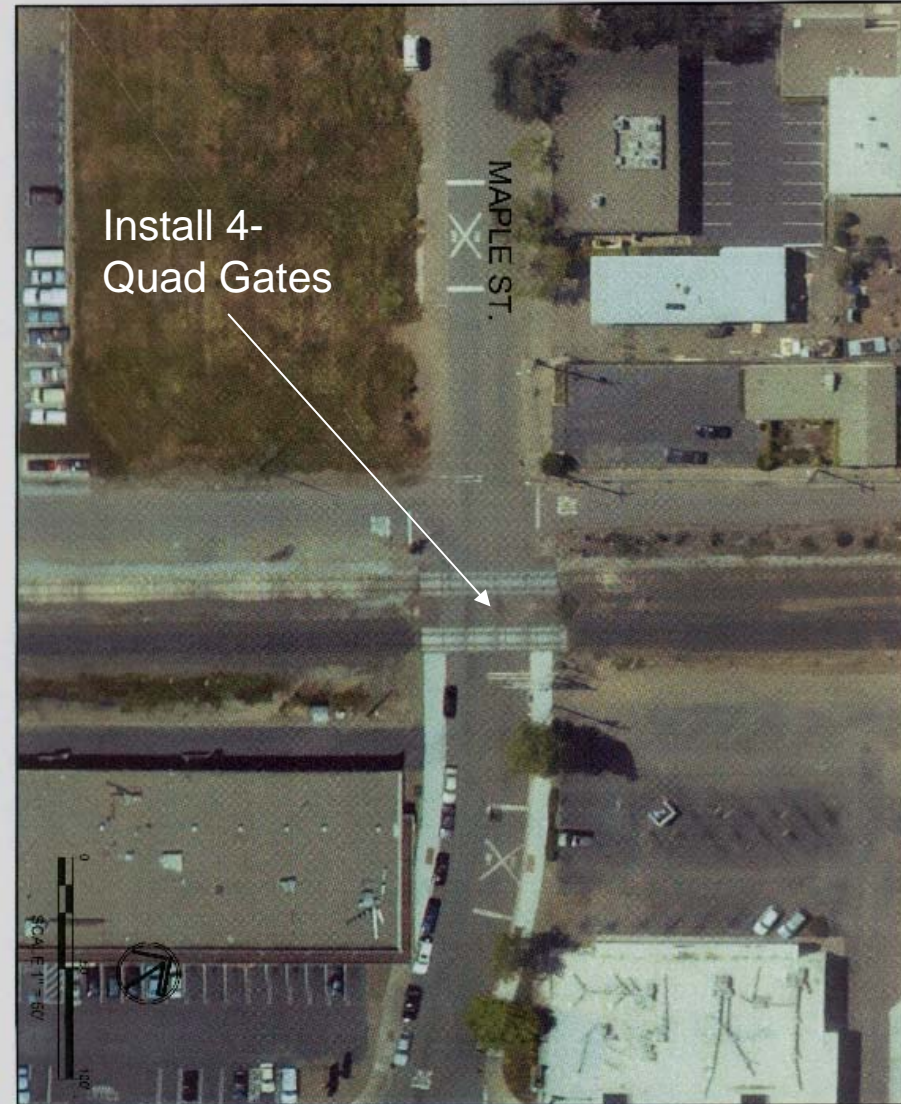
Maple St.

SSM

- ◆ Four-Quadrant Gates

ISSUE(S)

- ◆ On-going maintenance cost
- ◆ Requires CPUC approval
- ◆ Requires UPRR coordination and approval
- ◆ Longer lead time
- ◆ High capital cost and on-going maintenance cost



Dusterberry Ave.

SSM

- ◆ Median

ISSUE(S)

- ◆ Prohibits extension of Baine Ave. to Dusterberry
- ◆ Requires CPUC approval
- ◆ Requires UPRR coordination and approval



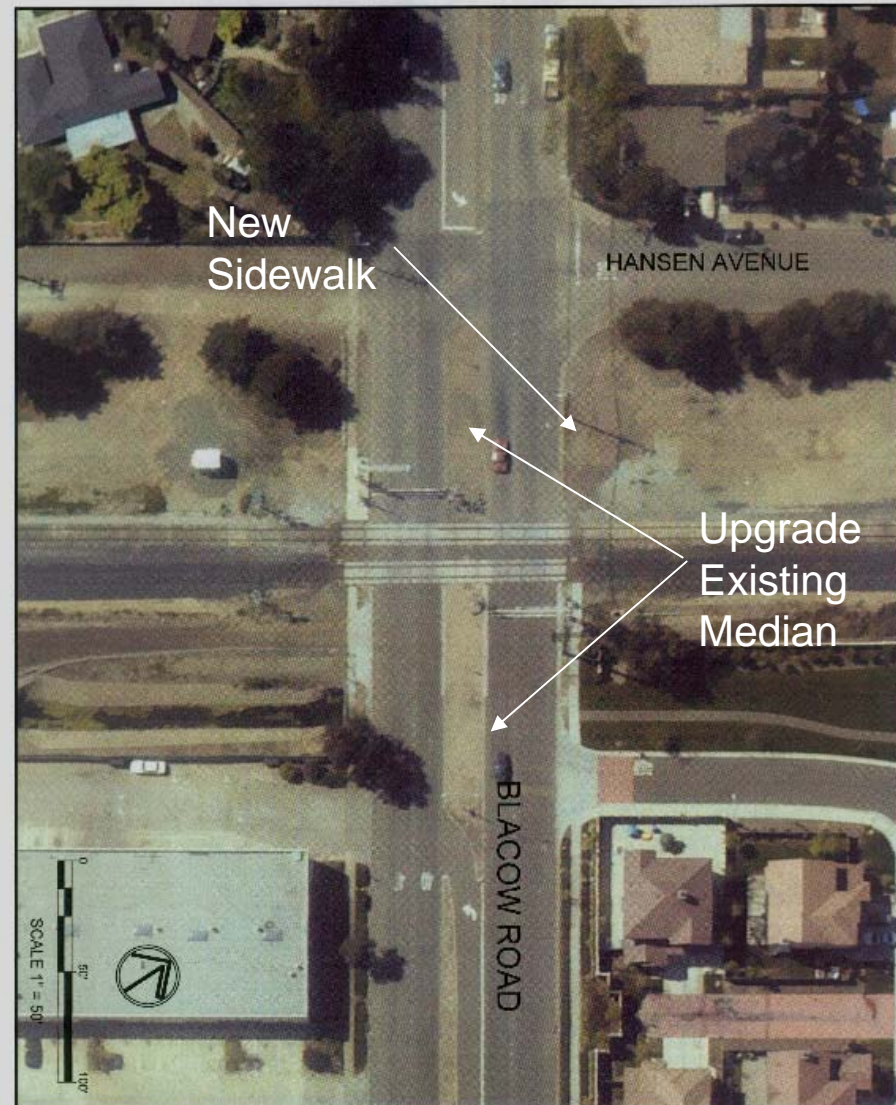
Blacow Rd.

SSM

- ◆ Median

ISSUE(S)

- ◆ Requires CPUC approval
- ◆ Need other improvements
- ◆ Requires UPRR coordination and approval



Nursery Ave.

SSM

- ◆ Median

ISSUE(S)

- ◆ May need to close business driveway
- ◆ Requires CPUC approval
- ◆ Requires UPRR coordination and approval



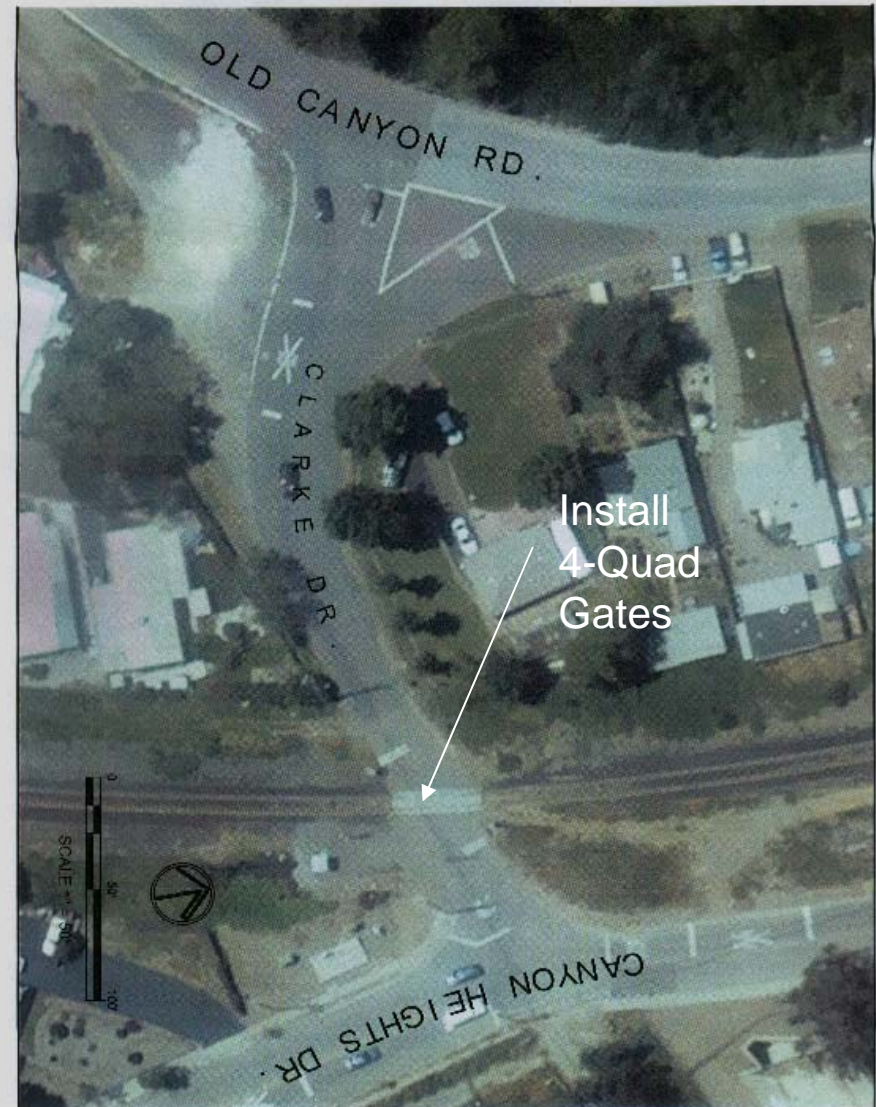
Clarke Dr.

SSM

- ◆ Four-Quadrant Gate

ISSUE(S)

- ◆ Requires CPUC approval
- ◆ Requires UPRR coordination and approval
- ◆ Longer lead time
- ◆ High capital cost and on-going maintenance cost



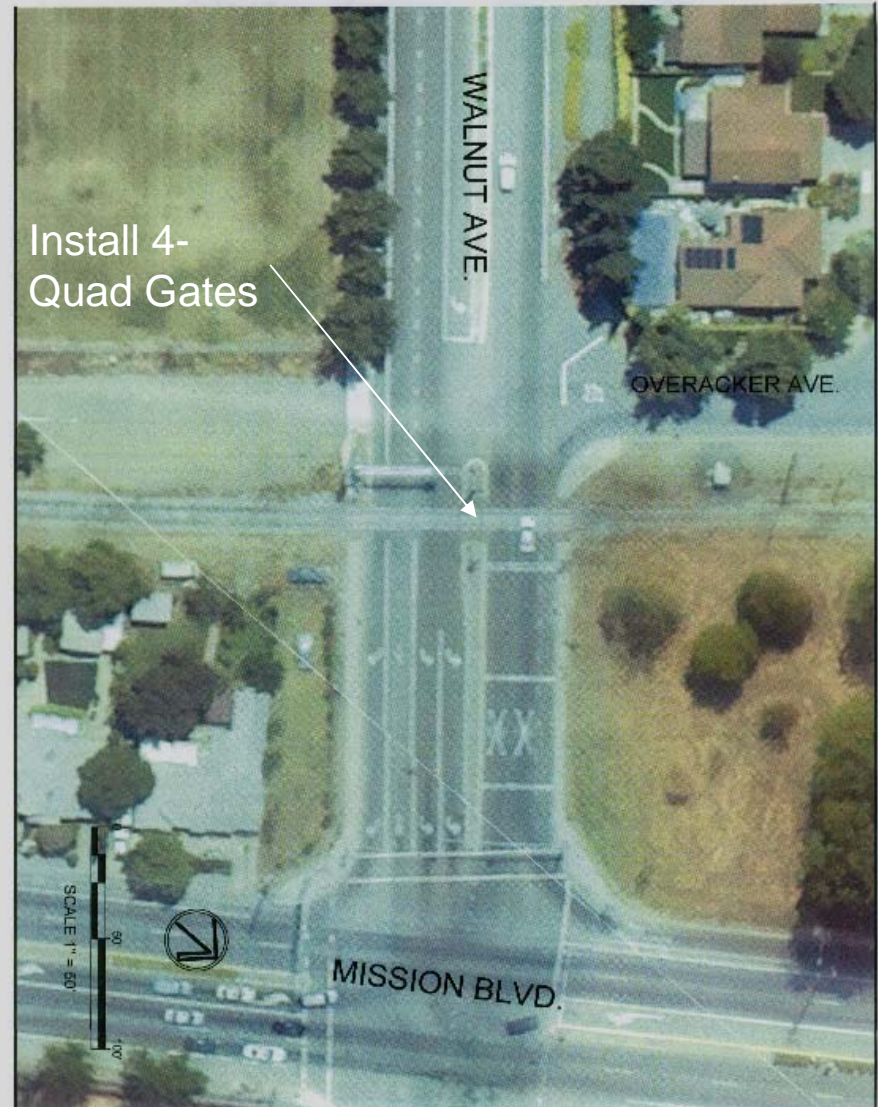
Walnut Ave.

SSM

- ◆ Four-Quadrant Gate

ISSUE(S)

- ◆ Requires CPUC approval
- ◆ Requires UPRR coordination and approval
- ◆ Longer lead time
- ◆ High capital cost and on-going maintenance cost



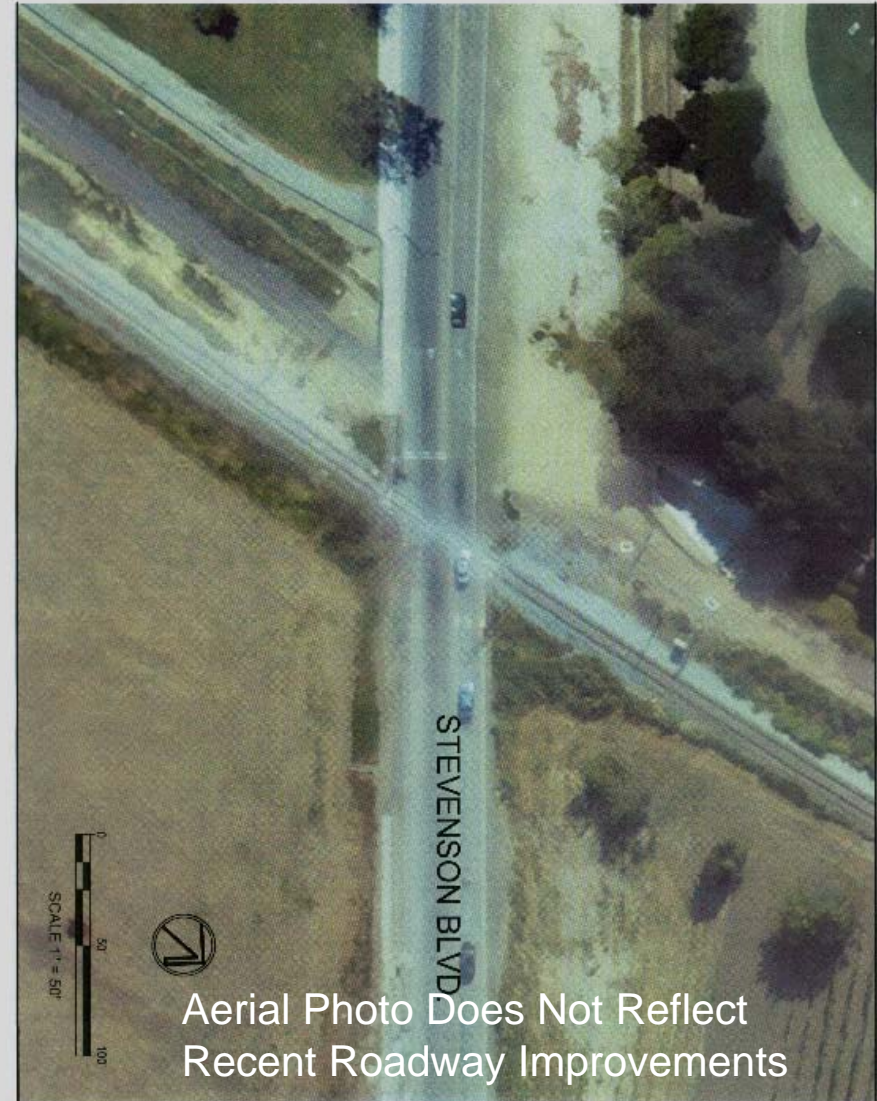
Stevenson Blvd.

SSM

- ◆ Median (existing)

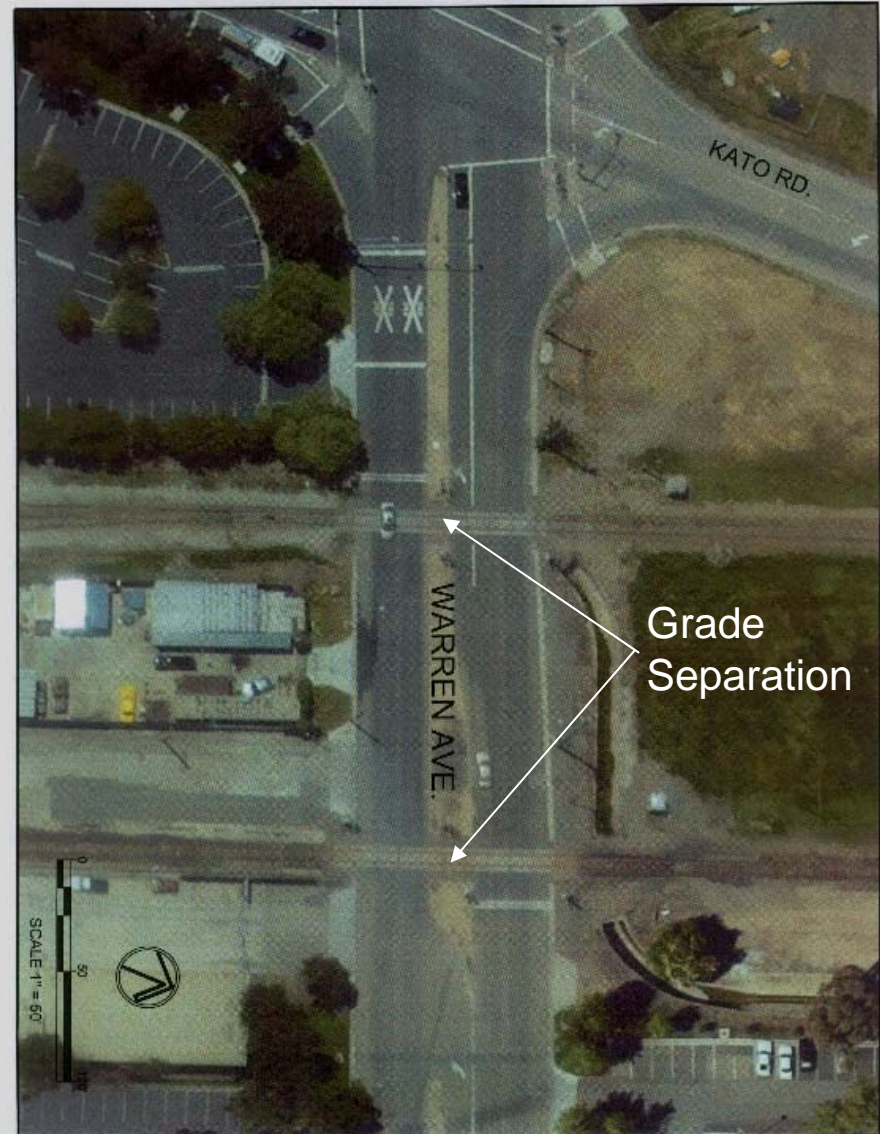
ISSUE(S)

- ◆ None



Warren Ave.

- ◆ Grade Separation as part of I-880/Mission Interchange Improvements
- ◆ Anticipated Spring 2011



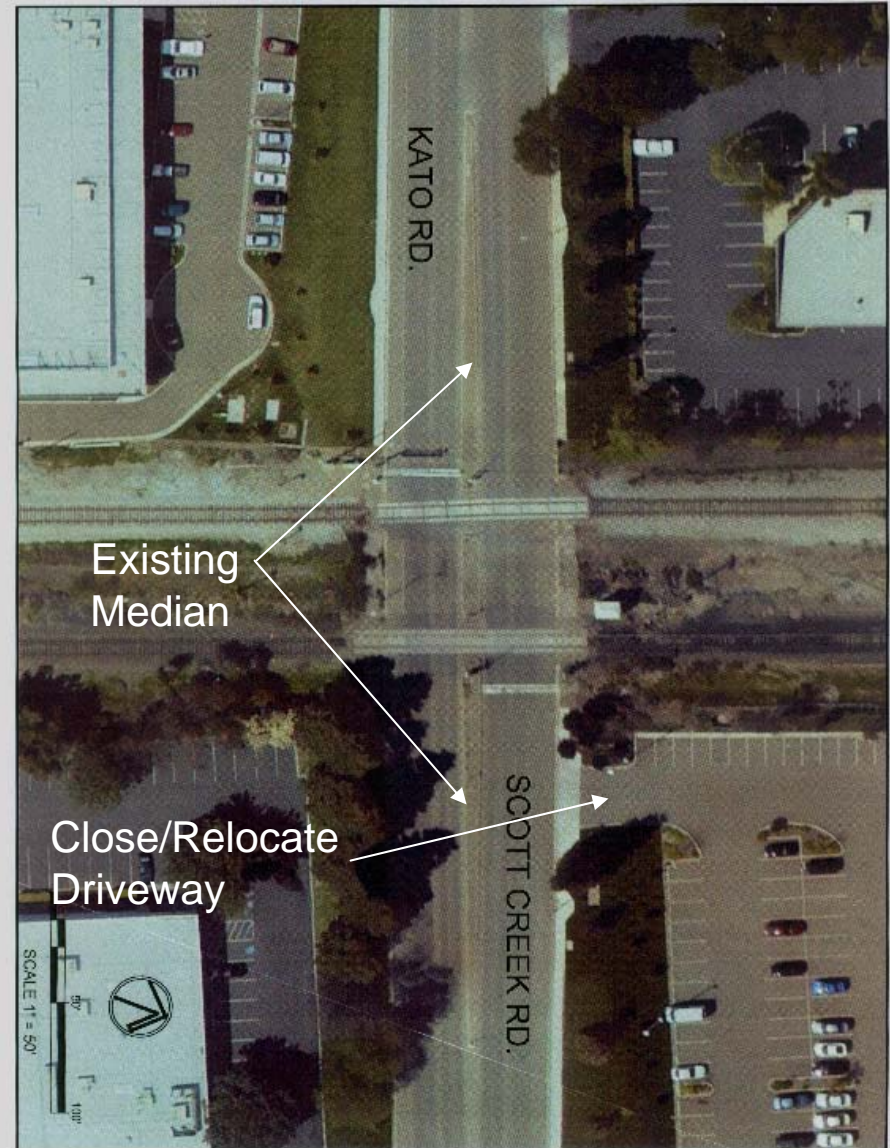
Kato Rd.

SSM

- ◆ Median (Existing)

ISSUE(S)

- ◆ May need to close or relocate business driveway



Estimated Cost

Quiet Zone 1a	Quiet Zone 1b	Quiet Zone 2	Quiet Zone 3a	Quiet Zone 3b
Shinn Fremont Maple Dusterberry Blacow	Nursery	Clarke	Walnut Stevenson	Warren* Kato * Future Grade Separation
\$2.3M	\$160k ¹	\$920k	\$920k	\$190k ¹
\$30k annual	\$3k annual	\$10k annual	\$10k annual	\$0

¹ Does not include right-of-way costs

Total Estimated Capital Cost: \$4.5M

Total Estimated Maintenance Cost: \$53k annually

Safety and Liability



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Summary

- ◆ The City has the ability to establish one or more quiet zones
- ◆ The City may have to take on additional liability to establish quiet zones
- ◆ Quiet zones may be established without increasing risk when other safety improvements are installed
- ◆ Funding to move forward with establishing quiet zones has not been established

City Council Input

- ◆ Safety
- ◆ Liability
- ◆ Cost/Funding



Questions and Answers

- ◆ City Council
- ◆ Public

